

### REMARKS

By this amendment, claim 17 has been cancelled, claims 1 and 15 have been amended, and claims 18-21 have been added. Thus, claims 1-16 and 18-21 are now active in the application. Reexamination and reconsideration of the application are respectfully requested.

On pages 2-5 of the Office Action, claims 1, 3, 4, 6, 9, 13, 14 and 16 were rejected under 35 U.S.C. § 102(b) as being anticipated by Maeda et al.(US 4,886,246); and claims 2, 5, 7, 8, 10-12 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Maeda et al. in view of Ohshita et al. (US 4,823,740). These rejections are believed clearly inapplicable to claims 1-16 as amended, and are also believed clearly inapplicable to new claims 18-21, for the following reasons.

Claim 1 has now been amended to require the fluidized medium discharge chute 20 to have a medium-receiving end (e.g. top end in Fig. 1A) and a medium-discharge end (e.g. bottom end in Fig. 1A), with the medium-receiving end being connected to the discharge port 16, and with the fluidized medium discharge chute 20 extending downwardly from the medium-receiving end connected to the discharge port 16 to the medium-discharge end disposed below the discharge port 16. Furthermore, claim 1 has been amended to require the gas blow device (e.g. 13) to be provided below the fluidized medium discharge chute 20 for blowing a gas **into the medium-discharge end** of the fluidized medium discharge chute **toward the medium-receiving end** of the fluidized medium discharge chute 20.

In the prior art rejection presented in the Office Action, the Examiner took the position that, in the Maeda et al. patent, the gas blow device 3 blows a gas into “an interior of said fluidized medium discharge chute” as claimed in previous claim 1, because the gas from gas blow device 3 of Maeda et al. is blown into the openings 6a formed in the grate-type gas distributor 6. In other words, the Examiner considered the openings 6a of the grate-type gas distributor 6 as the “interior” of the fluidized medium discharge chute, as claimed in previous claim 1. However, since claim 1 has now been amended to require the gas blow device to blow a gas into the medium discharge end of the fluidized medium discharge chute toward the medium-

receiving end of the fluidized medium discharge chute, the Maeda et al. patent can no longer be said to be readable upon claim 1.

More specifically, the Examiner has referred to the element 4 of Maeda et al. as the discharge chute. The fluidized medium 7a is received in the top end of the discharge chute 4 and discharged through the bottom end of the discharge chute 4, as illustrated in Fig 2. The gas blow device 3 of Maeda et al. clearly does not blow a gas into the medium-discharge end (bottom end) of the discharge chute 4 toward the medium-receiving end (top end) of the discharge chute 4 of the Maeda et al. patent, as required by present claim 1.

Accordingly, for the above reasons, it is believed apparent that the present invention as recited in claim 1 is not anticipated by the Maeda et al. patent. Furthermore, there is no teaching or suggestion in the Ohshita et al. patent or in any of the references of record that would have motivated a person of ordinary skill in the art to modify Maeda et al. or to make any combination of the references of record in such a matter as to result in or otherwise render obvious the present invention recited in claim 1. Therefore, it is respectfully submitted that claim 1, as well as claims 2-16 which depend therefrom, are clearly allowable over the prior art of record.

Next, new independent claim 18 is similar to previous claim 1, but has been revised to further require the inclusion of a device for mechanically withdrawing the fluidized medium, the device being provided in the vicinity of the lowermost part of the fluidized medium discharge chute. This device for mechanically withdrawing the fluidized medium is exemplified in the present drawing figures as the screw conveyor 15. New claim 18 further requires the inclusion of a gas blow device for blowing a gas into an interior of the fluidized medium discharge chute, and that the gas blow device is provided below the device (e.g. 15) for mechanically withdrawing the fluidized medium. This gas blow device as recited in claim 18 is exemplified by the gas blow nozzle 14 shown in the present drawing figure, and these features of claim 18 are clearly supported in the original specification at, for example, page 9, lines 15-27.

In contrast to the present invention of claim 18, the Maeda et al. patent discloses the conduit 3 for introducing a high-temperature reducing gas. However, as acknowledged by the Examiner on page 4 of the Office Action, the Maeda et al. patent does not show a mechanical

device for removing the fluidized medium. Accordingly, the Maeda et al. patent fails to disclose or suggest the provision of a gas blow device provided below a device for mechanically withdrawing the fluidized medium.

The Examiner cited the Ohshita et al. patent for disclosing a mechanical means of removing the incombustible residue or fluidizing medium away from a discharge passage 69 or discharge chute. However, the Ohshita et al. patent does not disclose or suggest the provision of a gas blow device for blowing a gas into an interior of the fluidized medium discharge chute. Accordingly, the Ohshita et al. patent also fails to disclose or suggest the provision of a gas blow device provided below a device for mechanically withdrawing the fluidized medium.

Thus, according to the present invention recited in claim 18, since a classification effect is caused by the gas blown through the gas blow device, concentration of incombustibles can be expected. Therefore, it is possible to reduce the amount of the discharged fluidized medium and carry-over heat loss. Particularly, when steam or carbon dioxide is blown from the gas blow device, an effect of cooling the fluidized medium in the fluidized medium discharge chute can be enhanced by an endothermic reaction between steam or carbon dioxide and carbon particles contained in the fluidized medium within the fluidized medium discharge chute (See page 10, lines 6-20 of the present specification).


Thus, as discussed above, neither of the Maeda et al. patent and the Ohshita et al. patent teaches or suggests the provision of a gas blow device below a device for mechanically withdrawing the fluidized medium. Accordingly, a person having ordinary skill in the art would clearly not have been motivated to modify the Maeda et al. patent or to make any combination of the references of record in such a manner as to result in or otherwise render obvious the present invention as recited in claim 18. Therefore, it is respectfully submitted that claim 18, as well as claims 19-21 which depend therefrom, are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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